Data Source: EM CDB Report Number: GEN-01b

Operations/Field Office: Oak Ridge

Print Date: 3/9/2000

Site Summary Level: Oak Ridge Reservation HQ ID: 0129

Project OR-381 / ORNL Nuclear Materials & Facilities Stabilization - Def

## **General Project Information**

## **Project Description Narratives**

### Purpose, Scope, and Technical Approach:

The purpose of the Oak Ridge National Laboratory (ORNL) Nuclear Materials and Facility Stabilization (NMFS) Project is to place surplus facilities at ORNL in a safe and stable condition as quickly and economically as possible. These facilities will be prepared for an extended period of minimal life cycle surveillance and maintenance (S&M) pending eventual transfer to the Environmental Restoration (ER) Program. S&M for the facilities will be performed by this project during the period of deactivation and for one year after deactivation has been completed. This project provides for the management of spent nuclear fuel (SNF) on the Oak Ridge Reservation. SNF will be repackaged, certified, and placed in interim storage until it can be shipped to the Idaho National Engineering and Environmental Laboratory.

The scope of work for the ORNL Nuclear Materials and Facility Stabilization Project includes the following subprojects:

- a) Spent Nuclear Fuel The objective of the Oak Ridge SNF Project is to safely, reliably, and efficiently manage SNF that is stored on the Oak Ridge Reservation. The SNF Vulnerability for storage in Solid Waste Storage Area 5 North (SWSA 5N) is being resolved (Defense Nuclear Facilities Safety Board Finding 94-1). The SNF is being repackaged and certified for shipment to the Idaho National Engineering and Environmental Laboratory (INEEL) per the Programmatic Environmental Impact Statement Record of Decision (60 CFR 28680).
- b) Isotopes Facilities Deactivation Project The purpose of the Isotopes Facilities Deactivation Project (IFDP) is to place surplus facilities at ORNL in a safe, stable, and environmentally sound condition as quickly and economically as possible. The IFDP facilities are Building 3026 C/D, Building 3038, and Building 3517. These facilities will be prepared for an extended period of minimal life cycle surveillance and maintenance (S&M) pending eventual transfer to the ER Program. S&M for these facilities will be performed by this project during the period of deactivation and for one year after deactivation has been completed.
- c) High Ranking Facilities Deactivation Project The purpose of the High Ranking Facilities Deactivation Project (HRFDP) is to place the high risk ranking surplus facilities at ORNL in a safe, stable, and environmentally sound condition as quickly and economically as possible. The HRFDP facilities are the Bulk Shielding Reactor Facility (BSF) and its ancillaries, and the Tower Shielding Reactor Facility (TSF) and its ancillaries. These facilities will be prepared for an extended period of minimal life cycle S&M pending eventual transfer to the ER Program. S&M for these facilities will be performed by this project during the period of deactivation and for one year after deactivation has been completed.

The technical approaches for the ORNL Nuclear Materials and Facility Stabilization Project include the following:

- a) Spent Nuclear Fuel Necessary data packages will be prepared in order to ship SNF to INEEL. SNF will be repackaged to meet the shipping criteria and the acceptance criteria for INEEL. In order to complete the SWSA 5N vulnerability resolution, contaminated water will be pumped out of storage positions, storage positions will be decontaminated, and the new liners will be installed with grout filling the annulus between the existing casing and the new liner.
- b) Isotopes Facilities Deactivation Project Bechtel Jacobs Company LLC personnel and associated subcontractors will provide overall project management services, field operations support and construction management services. Bechtel Jacobs Company procurement personnel will prepare the Requests for Proposal (RFPs) and procure the fixed price subcontracts to perform surveillance and maintenance and facility remediation.

Dataset Name: FY 1999 Planning Data Page 1 of 11

Data Source: **EM CDB** Report Number: GEN-01b

Operations/Field Office: Oak Ridge Print Date: 3/9/2000

HQ ID: 0129 Site Summary Level: Oak Ridge Reservation

Project OR-381 / ORNL Nuclear Materials & Facilities Stabilization - Def

## **Project Description Narratives**

c) High Ranking Facilities Deactivation Project - Bechtel Jacobs Company LLC personnel and associated subcontractors will provide overall project management services, field operations support and construction management services. Bechtel Jacobs Company procurement personnel will prepare RFPs and procure the fixed price subcontract(s) to perform S&M. S&M activities will be conducted based on relevant procedures and at a level commensurate with the hazards of the facilities. S&M activities will be reduced as hazards are decreased and/or eliminated. Quantification of excess materials in the BSF pool will be performed using a NOMAD and applying the survey data to a model in order to determine the isotopic makeup of activated materials, which is necessary to identify disposition options. The materials will be packaged for disposal or recycling based on radiological data and the chosen disposition method. Quantification of excess materials from the TSF has been completed and these materials will be packaged for disposal and/or transportation to recycle vendor or disposal location. Unnecessary steam and water lines will be disconnected, drained, and capped. Heat detectors will be placed in the facilities, and electrical circuits will be deactivated as deemed appropriate. An RFP will be awarded to purchase a conversion unit to convert sodium to sodium hydroxide, and ownership will be retained by DOE which will allow the opportunity for continued use by processing sodium from other DOE facilities. A separate RFP will be issued for the removal of lithium hydride from the site.

The scope assumptions for the ORNL Nuclear Materials and Facility Stabilization Project include the following:

#### a) Spent Nuclear Fuel

Fabricate Canisters -A total of 34 more canisters will be fabricated.

#### Hot Cell Activities

- -A total of 11 more SNF packages will be repackaged, and 10 packages of KEMA SNF will be loaded in canisters.
- -Repackaging activities will result in a total of 46 completed canisters.
- -The quantity of SNF in the hot cells at building 3525 is limited by criticality safety requirements, security issues, and the availability of trained operators.

#### Transfer Canisters to Storage

- -A total of 50 repackaged SNF canisters will be transferred to storage.
- -Waste storage operations will continue to operate and maintain the facilities where SNF is stored.

Design and Fabricate Cask Basket -The subcontractor will request amendment to the Certification of Compliance for the TN-FSV cask for shipping the Oak Ridge SNF to INEEL.

Intact Peach Bottom Fuel Elements -A total of 9 intact Peach Bottom fuel elements will be transferred to storage position 2 in facility 7827.

#### 7827 Vulnerability Resolution

- -The SWSA 5N SNF vulnerability will be resolved by facility modifications, including the installation of 49 liners in facility 7827.
- -The sodium-bonded SNF can be sectioned, packaged, and shipped to INEEL in the same manner as the rest of the SNF; no extraordinary stabilization or treatment will be required.

Retrieval of 7829 SNF Packages

Dataset Name: FY 1999 Planning Data Page 2 of 11

Data Source: **EM CDB** Report Number: GEN-01b

Operations/Field Office: Oak Ridge Print Date: 3/9/2000

HQ ID: 0129 Site Summary Level: Oak Ridge Reservation

Project OR-381 / ORNL Nuclear Materials & Facilities Stabilization - Def

## **Project Description Narratives**

-A total of 11 SNF packages will be transferred from facility 7829 to building 3525.

-The sectioned Peach Bottom fuel will be packaged for shipment to INEEL, and the graphite material not containing SNF will be packaged for disposal as low-level waste (LLW).

Ship SNF to INEEL -Six shipments (9 intact Peach Bottom assemblies and 84 canisters) will be made, and each shipment will contain up to 30 canisters or 6 intact Peach Bottom assemblies.

SWSA 6 SNF Removal -One package of KEMA SNF will be retrieved from SWSA 6 and packaged to meet the acceptance criteria for shipment to

Project Management -The current level of reporting and coordination with DOE and the National SNF Program will be continued.

b) Isotopes Facilities Deactivation Project

The Scope of the LCB is limited to facilities in the IFDP as of October 1, 1999.

- The project will follow the substantive requirements, but not the administrative process of CERCLA.
- The waste management system has the capacity and resources to handle all waste generated by the IFDP.
- Bechtel Jacobs Company will be the lead participant. Selected activities will be subcontracted with Bechtel Jacobs Company oversight, validation and verification.
- The IFDP will provide S&M of deactivated facilities for one year after completion of deactivation.
- S&M activities will be limited to those activities required to comply with Facility Authorization Basis Documents, and Bechtel Jacobs Company LLC Work Smart Standards.
- Radioactive Sources stored in Building 3517 can be loaded into remote handled solid low level waste canister and stored by Waste Management until such time as they can be shipped to another DOE site for disposal.
- The off site transfer of the sources is not in the scope of the IFDP.
- Waste Management will take possession of all sources and by the end of FY 2003.
- c) High Ranking Facilities Deactivation Project Bechtel Jacobs Company will be the lead participant. Bechtel Jacobs Company will subcontract selected deactivation activities with oversight and verification.
- BSF includes the following facility numbers: 3010, 3009, 3117, 3117A, 3119, 3098, 13822.
- TSF includes the following facility numbers: 7700, 7700A, 7700B, 7701, 7702, 7703, 7704, 7705, 7706, 7707, 7708, 7716, 7720, and the TSF Excess Materials Storage Area.
- Project Management and S&M Oversight will be staffed at a level commensurate with the project activities.
- BSF S&M requirements will be reduced as deactivation activities are completed.
- 1 FTE will be required for TSF Facility Management.
- 0.33 FTE will be required for BSF Facility Management until the source and activated materials are removed from the reactor pool and the facility authorization basis has been updated.
- S&M activities will be limited to those activities required to maintain the facility in a safe condition, comply with Facility Authorization Basis documents, and comply with Bechtel Jacobs Company LLC Work Smart Standards.

Dataset Name: FY 1999 Planning Data Page 3 of 11

Data Source: **EM CDB** Report Number: GEN-01b

Operations/Field Office: Oak Ridge Print Date: 3/9/2000

HQ ID: 0129 Site Summary Level: Oak Ridge Reservation

Project OR-381 / ORNL Nuclear Materials & Facilities Stabilization - Def

## **Project Description Narratives**

- Either Bechtel Jacobs Company Legacy Waste or waste management will have the capacity and resources required to manage all waste generated by the HRFDP.

- Any DOE-requested changes required after a design has been certified for construction and/or deactivation may provide the basis for a baseline
- No activities will require new National Environmental Policy Act (NEPA) documentation. All necessary deactivation activities will meet an existing categorical exclusion from NEPA.
- No activities will be conducted as CERCLA.
- DOE NMFS will be responsible for development of all programmatic Memorandums of Agreement necessary to achieve project objectives, including ultimate transfer to Environmental Restoration.
- Bechtel Jacobs Company Sample Management Office will broker the sample analysis. They will perform data management and validation tasks.

#### **Project Status in FY 2006:**

Spent Nuclear Fuels: This project is scheduled for completion in FY 2003.

Isotopes Facilities Deactivation Project: This project is scheduled for completion in FY 2005.

High Ranking Facilities Deactivation Project: This project is scheduled for completion in FY 2005.

### Post-2006 Project Scope:

No activities are planned for FY 2006 and beyond.

#### **Project End State**

There are two deactivation projects associated with this PBS, High Ranking Facilities Deactivation and Isotopes Facilities Deactivation. The end state goal of these two projects is to stabilize the facilities included in these projects. Stabilization will include, but is not limited to, the removal of spent fuel, pool clean-out and stabilization, hot cell and facility clean-out, fire system modifications or deactivation, and utility deactivation. Once activities have been completed to deactivate the facilities, the facilities will be transferred to the S&M program to await final D&D. The facilities will be in a stable state requiring little to no S&M at the completion of this PBS. The SNF Vulnerability for storage in Solid Waste Storage Area 5 North will be resolved (Defense Nuclear Facilities Safety Board Finding 94-1). SNF will be repackaged, certified, and shipped to the Savannah River Site and to the Idaho National Engineering and Environmental Laboratory per the Programmatic Environmental Impact Statement Record of Decision (60 CFR 28680).

#### **Cost Baseline Comments:**

The DOE EM Life Cycle Baseline that was recently issued in draft form from Bechtel Jacobs Company to DOE-ORO is the cost basis for the PBS. Following development of scope statements, several methods were used for creating the cost estimates in the Life Cycle Baseline: use of cost estimating models, use of existing estimates, use of unit-price estimates, and extrapolation estimates. These are discussed below: 1. Existing Estimates - Existing estimates were also used. These estimates range in quality from detailed Feasibility Study estimates to one-line entry estimates. Regardless of the level of existing estimate detail, these estimates were reviewed for accuracy and modified as required to adequately qualify the line-

Dataset Name: FY 1999 Planning Data Page 4 of 11

Data Source: EM CDB Report Number: GEN-01b

Operations/Field Office: Oak Ridge

Print Date: 3/9/2000

Site Summary Level: Oak Ridge Reservation HQ ID: 0129

Project OR-381 / ORNL Nuclear Materials & Facilities Stabilization - Def

## **Project Description Narratives**

item cost data. 2. Extrapolation Estimates - Extrapolation estimates were typically derived from historical cost data and based on a required level of effort to perform a task or upon a historical production quantity. One example of an extrapolation estimate might be an estimate for the operation of a waste handling facility. In this example, the only available data might be the quantity of wastes handled per year and some historical costs for the different sub-operations of the facility over a given duration. To prepare a new estimate for planned out-year operations, extrapolations of these actual cost would be adjusted with logic from more recent cost trends and the Managing & Integrating Contractor approach/expectations. No matter which estimating method was used, each estimate was reviewed for errors, omissions, and consistency in approach across the DOE-ORO EM Program.

### Safety & Health Hazards:

The main hazard associated with the deactivation projects in this PBS is radiological exposure from contamination and radiation. The major contaminants of concern include, but are not limited to, Sr-90, Cs-137, Co-60, and U-235. The major physical hazard is the condition of the facilities. The facilities were constructed numerous years ago and were designed to have a short life. The facilities are showing their age through leaking roofs, structure decay, and the failure of utility systems. Workers are performing work in radiological contaminated areas on systems which are insulated with asbestos, equipment contaminated with PCB oils, and in areas of the facility which are structurally deteriorated. Hazards for SNF include irradiated fuel rod segments from various commercial and DOE nuclear reactor facilities. The material consists of residual actinide isotopes with various fission products, and is remote handled with direct radiation readings up to 6,000 R/hr at contact.

### Safety & Health Work Performance:

The Integrated Safety Management System will be used on all projects to ensure that work is performed safely. The scope of work will be defined in subcontract or other work planning documents. Mission goals and expectations will be defined in the scope of work. Hazards will be analyzed and identified by both the Bechtel Jacobs Environmental Safety and Health (ES&H) Team and the subcontractor's Safety and Health personnel. An ES&H crosswalk has been developed as a tool to document environmental, safety, and health hazards for each subcontract. Controls are developed and implemented by identifying the standards and requirements using the Work Smart Standards and these standards are included as part of the ES&H crosswalk. After the hazards and the method of work accomplishment are identified, an Activity Hazard Assessment (AHA) is required for each activity or task. Work cannot be performed until all of the required safety documentation is completed and reviewed for accuracy. Workers must also be properly trained and participate in pre-job reviews. Workers are required to review the applicable AHAs as well as attend daily safety meetings. Feedback and improvement are included in each step of the Integrated Safety Management System. Changes to improve worker safety as well as worker involvement in safety are included as part of the feedback and improvement process. At any time workers can stop a work activity if there are questions about safety. In addition, the Bechtel Jacobs ES&H Team will conduct oversight of work activities to identify compliance with safety plans, improvement of worker safety, and any additional or unforeseen hazards.

#### **PBS Comments:**

#### **Baseline Validation Narrative:**

The Oak Ridge Operations Office Environmental Management Life Cycle Baseline (LCB) was submitted by the Managing and Integrating Contractor, Bechtel Jacobs Company LLC, to DOE-ORO on April 1, 1999. The final draft LCB will be submitted to DOE-ORO on June 1, 1999 after formal receipt and incorporation of comments. A validation of the baseline is in process using an independent contractor to DOE-ORO. The validation will be ongoing until complete and the final validation report is scheduled to be issued on June 25, 1999.

Dataset Name: FY 1999 Planning Data Page 5 of 11

Data Source: EM CDB Report Number: GEN-01b

Operations/Field Office: Oak Ridge

Print Date: 3/9/2000

Site Summary Level: Oak Ridge Reservation HQ ID: 0129

Project OR-381 / ORNL Nuclear Materials & Facilities Stabilization - Def

## **General PBS Information**

Project Validated? Date Validated:

Has Headquarters reviewed and approved project?

No

**Date Project was Added:** 3/10/1999 **Baseline Submission Date:** 7/1/1999

FEDPLAN Project? Yes

**CERCLA** RCRA **DNFSB** AEA UMTRCA DOE Orders Other **Drivers:** State N N Y Y Y N N

**Project Identification Information** 

**DOE Project Manager:** Cavanaugh Mims

DOE Project Manager Phone Number:423-576-9481DOE Project Manager Fax Number:423-576-5333

**DOE Project Manager e-mail address:** mimsc@oro.doe.gov

Is this a High Visibility Project (Y/N):

## **Planning Section**

### **Baseline Costs (in thousands of dollars)**

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	41,614	0	41,614	3,072	2,991	2,822	2,319	3,555	3,580	8,700	7,282	8,266	3,851	486	0
PBS Baseline (constant 1999 dollars)	39,650	0	39,650	3,072	2,991	2,822	2,319	3,555	3,506	8,346	6,842	7,607	3,471	429	0
PBS EM Baseline (current year dollars)	41,614	0	41,614	3,072	2,991	2,822	2,319	3,555	3,580	8,700	7,282	8,266	3,851	486	0

Dataset Name: FY 1999 Planning Data Page 6 of 11

Data Source: EM CDB Report Number: GEN-01b

Operations/Field Office: Oak Ridge
Print Date: 3/9/2000

Site Summary Level: Oak Ridge Reservation HQ ID: 0129

Project OR-381 / ORNL Nuclear Materials & Facilities Stabilization - Def

<b>Baseline Costs (in t</b>	thousand	ls of dolla	rs)												
	1997-200 Total	06 2007-2 Tota		-2070 tal		ctual 1 1997	.998 Acti	ıal 199 98	9 2000	2001	2002	2003	2004	2005	2006
PBS EM Baseline (constant 1999 dollars)	39,6	50	0	39,650	3,072 2	,991 2,	822 2,3	19 3,555	5 3,506	8,346	6,842	7,607	3,471	429	0
	2007	2008	2009	2010				)26- )30 203			2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0 (	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0 (	0	0	0	0
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0 (	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0 (	0	0	0	0
Baseline Escalation	n Rates														
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009		
	0.00%	0.00%	0.00%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%		
	2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070		
	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%		

## **Project Reconciliation**

## **Project Completion Date Changes:**

Dataset Name: FY 1999 Planning Data Page 7 of 11

Data Source: EM CDB Report Number: GEN-01b

Operations/Field Office: Oak Ridge

Print Date: 3/9/2000

Site Summary Level: Oak Ridge Reservation HQ ID: 0129

Project OR-381 / ORNL Nuclear Materials & Facilities Stabilization - Def

**Project Reconciliation** 

**Previously Projected End Date of Project:** 

Current Projected End Date of Project: 9/30/2005 Explanation of Project Completion Date Difference (if applicable):

**Project Cost Estimates (in thousands of dollars)** 

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars): Actual 1997 Cost: 2,991 Actual 1998 Cost: 2,319

Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars): -5,310 Inflation Adjustment (2.7% to convert 1998 to 1999 dollars): -143

Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): -5,453

**Project Cost Changes** 

Cost Adjustments Reconciliation Narratives

**Cost Change Due to Scope Deletions (-):** 

**Cost Reductions Due to Efficiencies (-):** 

Cost Associated with New Scope (+):

**Cost Growth Associated with Scope Previously Reported (+):** 

Cost Reductions Due to Science & Technology Efficiencies (-):

**Subtotal:** -5,453

Additional Amount to Reconcile (+): 39,209

Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): 33,756

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite	
ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT START	OR381-001		10/1/1996									
ORNL NUCLEAR MATERIALS & FACILITIES	OR381-002		9/30/2005									

Dataset Name: FY 1999 Planning Data Page 8 of 11

Data Source: EM CDB Report Number: GEN-01b

Operations/Field Office: Oak Ridge

Print Date: 3/9/2000

Site Summary Level: Oak Ridge Reservation HQ ID: 0129

Project OR-381 / ORNL Nuclear Materials & Facilities Stabilization - Def

Milestone/Activity  Field Milestone  OR381-003  OR381-004  OR381-005  OR381-	rsite
SNF - INEEL-COMPLETE SHIPMENTS OF SNF OR381-004 9/30/2002 ORNL NMFS - Def Mission Completion OR381-005 9/30/2005  Milestones - Part II  Milestone/Activity Field Milestone Code Decision Closure Path Start End Complete Risk Scope Risk Risk  ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT START ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT START & FACILITIES STABILIZATION DEF - PROJECT START SFACILITIES STABILIZATION DEF - PROJECT END ORNL NUCLEAR MATERIALS & OR381-002 SNF - 7827 VULNERABILITY OR381-003 SNF - 7827 VULNERABILITY OR381-003 SNF - INEEL-COMPLETE OR381-004  OR381-004  9/30/2002  Project Project Mission Tech Work Intersite Cancelled Milestone Descrip Mission Complete Risk Scope Risk Risk  ORNL NUCLEAR MATERIALS OR381-001  Y ORNL NUCLEAR MATERIALS OR381-002  Y ORNL NUCLEAR MATERIALS OR381-002  SPENT NUCLEAR MATERIALS OR381-003  SPENT NUCLEAR FUEL VULNERABILITY RESOURCE OR381-004  SPENT NUCLEAR FUEL VULNERABILITY RESOURCE OR381-004	
Milestones - Part II  Milestones - Part II  Milestones - Part II  Milestones - Part II  ORNL NUCLEAR MATERIALS & GR381-001  EF - PROJECT START  ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT START  SPENJECT END  ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT END  ORNL NUCLEAR MATERIALS & GR381-002  SNF - 7827 VULNERABILITY  RESOLVED  OR381-003  OR381-003  OR381-004  Project Project Project Risk Size   Vision Complete   Visio	
Milestones - Part II  Milestone/Activity Field Milestone Code Decision Code Decision Closure Path Field Milestone Code Decision Closure Path Field Milestone Complete Start Facilities Stabilization DEF - PROJECT START  ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT START  ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT END  ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT END  SNF - 7827 VULNERABILITY RESOLVED  OR381-003  OR381-003  SPENT NUCLEAR FUEL	
Milestone/Activity Field Milestone Code Code Code Code Code Code Code Cod	
Code Decision Closure Path Start End Complete Risk Scope Risk Risk  ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT START  ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT START FOR PBS  ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT END  SFACILITIES STABILIZATION DEF - PROJECT END  OR381-002 Y Y ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT END DAPBS  SNF - 7827 VULNERABILITY RESOLVED  SNF - 1NEEL-COMPLETE OR381-004 STABILIZATION DEF - PROJECT END OR381-004 SPENT NUCLEAR FUEL  STABILIZATION DEF - PROJECT END DAPBS  SPENT NUCLEAR FUEL	
& FACILITIES STABILIZATION DEF - PROJECT START  DEF - PROJECT START DEF - PROJECT START FOR PBS  ORNL NUCLEAR MATERIALS & FACILITIES STABILIZATION DEF - PROJECT END  ORNL NUCLEAR MATE FACILITIES STABILIZATION DEF - PROJECT END DEF - PROJECT END DA PBS  SNF - 7827 VULNERABILITY RESOLVED  SNF - INEEL-COMPLETE OR381-004  FACILITIES STABILIZATION DEF - PROJECT END Y SPENT NUCLEAR FUEL	tion
& FACILITIES STABILIZATION DEF - PROJECT END DEF - PROJECT END DA PBS  SNF - 7827 VULNERABILITY RESOLVED SNF - INEEL-COMPLETE OR381-004 FACILITIES STABILIZAT DEF - PROJECT END DA PBS SPENT NUCLEAR FUEL VULNERABILITY RESO SPENT NUCLEAR FUEL SPENT NUCLEAR FUEL	ΓΙΟΝ
RESOLVED VULNERABILITY RESO SNF - INEEL-COMPLETE OR381-004 SPENT NUCLEAR FUEL	ΓΙΟΝ
IDAHO NATIONAL ENGINEERING & ENVIRONMENTAL LABORATORY	
ORNL NMFS - Def Mission OR381-005 Completion Y	
Performance Measure Metrics	
Category/Subcategory Units 1997-2006 2007-2070 1997-2070 Actual Planned Actual Planned	

Dataset Name: FY 1999 Planning Data Page 9 of 11

Data Source: EM CDB Report Number: GEN-01b

Operations/Field Office: Oak Ridge

Print Date: 3/9/2000

Site Summary Level: Oak Ridge Reservation HQ ID: 0129

Project OR-381 / ORNL Nuclear Materials & Facilities Stabilization - Def

Performance Measur	re Metric	es												
Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planne 200
Fac.														
Deact. During Per.	NF	7.00	0.00	7.00										7.0
Rem. Waste														
Disposed	M3	214.00	0.00	214.00					38.00	176.00	0.00	0.00	0.00	
NM														
Stablilized - Other NM	HU	4.00	0.00	4.00									4.00	
NM														
MDR - Other NM	Ncont	3.00	0.00	3.00				1.00					2.00	
SNF														
Shipped for Consolidation	MTHM	0.30	0.00	0.30				0.08	0.00	0.00	0.00	0.22	0.00	
Category/Subcategory	Units	Planno 200				Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	2016	- 2021	- 202		anned 2031 - 2035
Fac.														
Deact. During Per. Rem. Waste	NF	7.0	00											
Disposed NM	M3													
Stablilized - Other NM	HU													
NM														
MDR - Other NM	Ncont													

Dataset Name: FY 1999 Planning Data Page 10 of 11

Data Source: EM CDB Report Number: GEN-01b

Operations/Field Office: Oak Ridge

Print Date: 3/9/2000

Site Summary Level: Oak Ridge Reservation HQ ID: 0129

Project OR-381 / ORNL Nuclear Materials & Facilities Stabilization - Def

Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035
SNF													
Shipped for Consolidation	MTHM												
Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total			
Fac.													
Deact. During Per.	NF									9.00			
Rem. Waste													
Disposed NM	М3									176.00			
Stablilized - Other NM NM	HU									4.00			
MDR - Other NM SNF	Ncont									2.00			
Shipped for Consolidation	MTHM									0.22			

Dataset Name: FY 1999 Planning Data Page 11 of 11